1964 PONTIAC

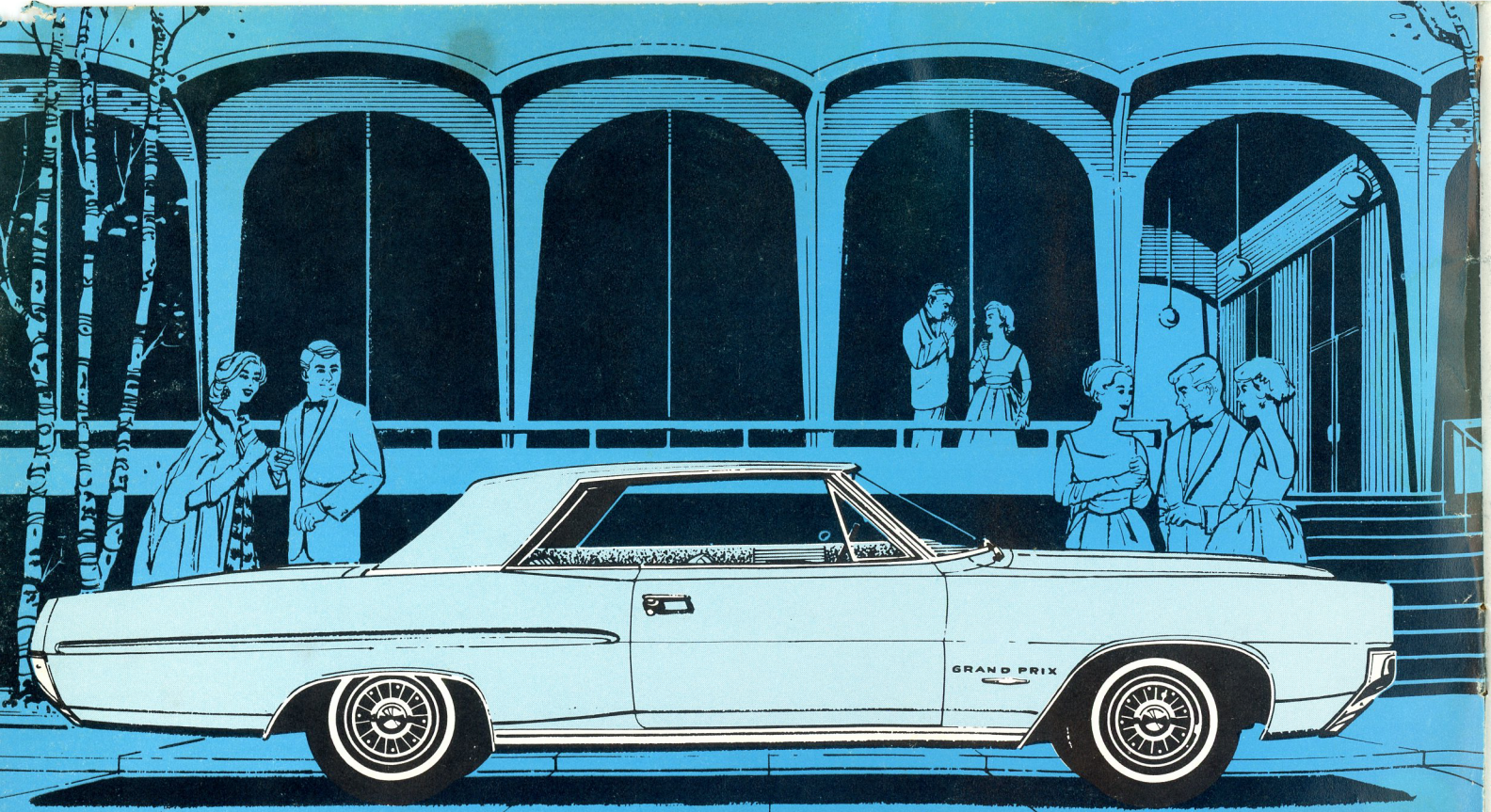
owner's guide

BONNEVILLE

GRAND PRIX

Star Chief

Catalina



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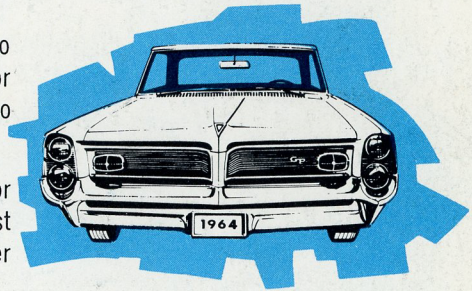
BREAKING-IN YOUR NEW CAR

Your new Pontiac should have a moderate break-in before you make full use of its high level performance. The information which follows supplies the proper break-in procedure.

Sustained high speed or constant speed driving should be restrained until the mileage schedule is completed.

Drive your new car moderately for 5 to 10 minutes after starting to allow time for the engine, transmission, and rear axle to warm up.



Avoid high speed stops and frequent or severe brake applications during the first few hundred miles to permit proper break-in of your brakes.

The speed limitations below should be followed during the first 600 miles your Pontiac is driven to allow proper new car break-in.

First 200 Miles	Not To Exceed 50 M.P.H
Second 200 Miles	Not To Exceed 60 M.P.H.
Third 200 Miles	Not To Exceed 70 M.P.H.

FIRST PRINTING 8-63

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1 Operating Instructions

KEYS

TO A NEW EXPERIENCE IN DRIVING

Keys and Key Numbers—Two sets of keys are furnished with your car Each set contains a key with an octagonal handle and a key with an oval handle.

The OCTAGONAL KEY operates the front doors and ignition locks on all models and the tail gate on Safari station wagon models.

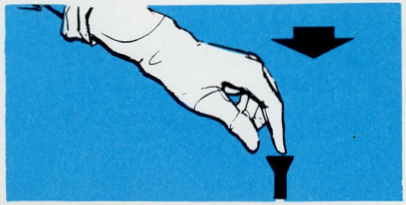
The OVAL KEY operates the glove compartment lock on all models and the luggage compartment on all models except Safari station wagons. On models with console, this key also operates the console compartment.

To prevent unauthorized persons from securing duplications of your keys, make a record of the key numbers which appear on the small metal slugs fastened in the keys. Then knock out the slugs and discard them. If you require duplicate keys, they should be ordered from your local Pontiac dealer If you lose your key numbers, they can be secured by wiring or writing the Owner's Service Department, Pontiac Motor Division, Pontiac, Michigan, giving the serial number of your car

Door Locks—If you wish to lock the doors from the inside, push down the small button below the window of each door Both front doors can be locked from the outside with a key in the usual way, but you don't have to use the key to lock your car Simply open the door, press the button down, depress the outside door handle plunger and then close the door When the door is closed, release the plunger and the door is locked.

Safety Feature—All four-door sedans have rear door locks which are designed and set so that the inside door handle is inoperative when the door locking button is depressed. This is a very important safety feature, especially when children are riding in the car.

Riding with the door lock buttons depressed also minimizes chances of the doors opening in a collision.



Ignition Switch—The ignition switch has four positions . . accessory, off, on, and start. The "accessory" position enables you to operate accessories without having the engine running or the ignition switch "on". When parking operate lights and accessories with switch in accessory position.

As a convenience, the ignition switch is illuminated when the combination headlight and instrument panel light switch control knob (see illustration on page 14) is pulled out.

STARTING YOUR PONTIAC

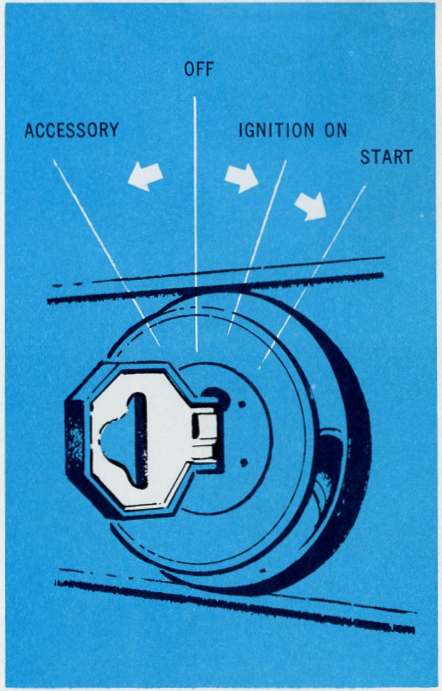
Hydra-Matic and Synchro-Mesh

1. Hydra-Matic—Place control lever in "P" or "N" position. Starter is inoperative in any other position. Do not pump accelerator pedal as this floods the engine.

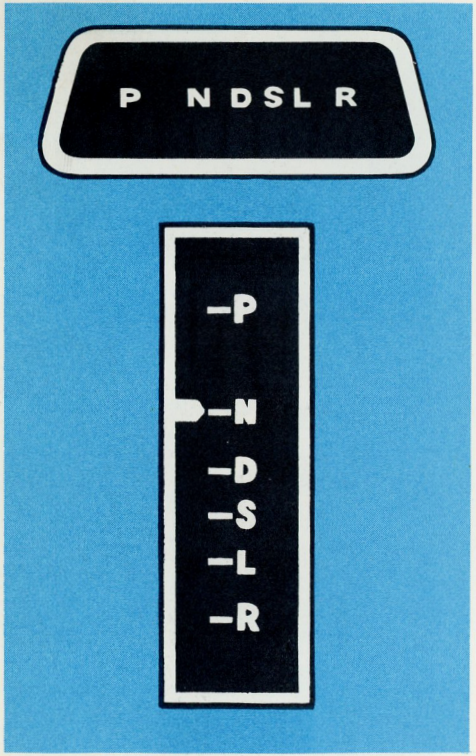
2. **Engine Cold**—Depress accelerator pedal to floor once and release, this sets automatic choke. Whenever starting at temperatures below 0°F., it may be necessary to hold the accelerator pedal down slightly.

3. **Engine Warm**—Hold accelerator pedal about half open. Turn ignition key to extreme right and release as soon as engine starts. Should the engine "flood", hold the accelerator pedal to the floor while starting the engine. Do not pump the accelerator at any time.

4. Never leave vehicle unattended with the engine running.



Warm-up—Racing the engine or driving at high speeds before the car is warmed up causes unnecessary wear. Oil needs time to warm up and circulate fully and efficiently between moving parts. Let the engine idle momentarily after starting and drive at moderate speeds for 5-10 minutes.



Operating Your Hydra-Matic Transmission—Hydra-Matic operating ranges are shown on the indicator above the steering column (or on the center console indicator on models so equipped). The pointer indicates the operating range selected by movement of the shift lever The letters are illuminated when the instrument panel lights are on. Operating ranges are as follows·

P Parking and starting. This position provides locking within the transmission to keep your car from rolling. Raise the selector lever (column shift) or press the button (console shift) to select or release this position. Never engage "P" with the car moving. When parking always apply parking brake firmly.

N Neutral and starting. **Do Not coast in neutral.**

D Drive. For all normal, freeway, or open road driving. The transmission shifts into direct drive range in this position.

S Super. For ascending or descending steep grades and to assist braking on clear dry pavement. The transmission does not upshift out of this range except at very high speeds. Do not shift from drive to super while traveling on slippery road as a skid could be induced.

L Low. For controlled power or when road signs indicate the use of "second gear". This range is provided for pulling through deep sand and snow and ascending or descending very steep grades. The shift lever may be moved into this position at any car speed below 40 M.P.H. Do not shift from Drive to Low while traveling on slippery roads as a skid could be induced.

R Reverse. For backing the car. To operate car in reverse, stop vehicle and move selector lever to "R".

Driving Cautions—**Do not coast with the car in neutral (N) at any time. Leaving the selector in one of the driving positions allows the engine to supply braking force when decelerating and helps keep your car under control at all times. Always place vehicle in park position and set hand brake when leaving vehicle.**

Do not idle the vehicle "in gear" except for short intervals. Never work under the hood with the engine running and the transmission "in gear" unless another person is in the car with his foot on the brake.

Passing Speed—For extra performance, at speeds below 35 M.P.H. with the transmission selector lever in the Drive position only a partial application of the accelerator pedal is necessary to down shift the transmission. At speeds between 35 and 75 M.P.H. simply depress the accelerator pedal to the floor. This will cause the transmission to downshift to a lower range to provide power and acceleration for passing.

Rocking the Car—If it becomes necessary to rock the car to free it from sand, mud or snow, move the selector lever from "L" to "R" in a repeat pattern while simultaneously applying moderate pressure to the accelerator. For this purpose "R" position may be engaged at speedometer readings below 5 M.P.H. Avoid spinning wheels when trying to free from sand, mud or snow.

Emergency Starting—Your Pontiac with Hydra-Matic transmission cannot be started by pushing or towing due to the design of the transmission. In event of battery failure, use jumper cables from another battery to start the engine.

CAUTION: Connect positive to positive and negative to negative. Incorrect connection will damage the electrical system.

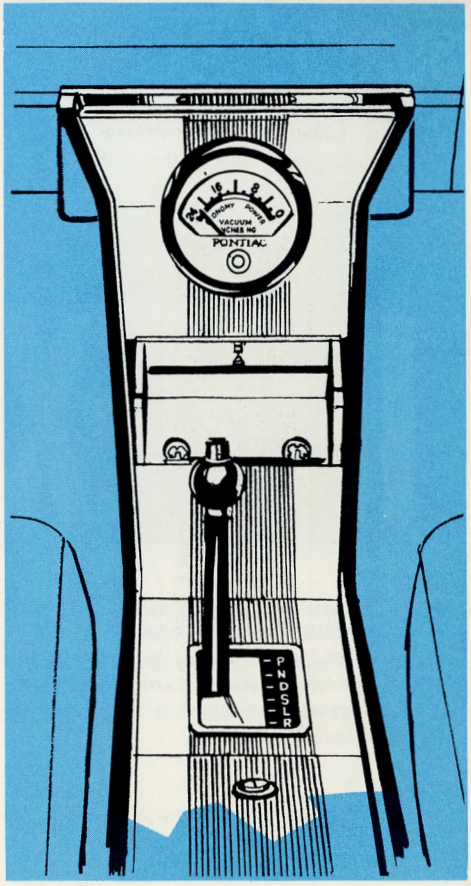
Console—The sports type console, standard on Grand Prix series, houses the control lever for the transmission. Synchro-Mesh console models are also equipped with a tachometer mounted on the left end of instrument panel, while Hydra-Matic console models are equipped with a vacuum gauge.

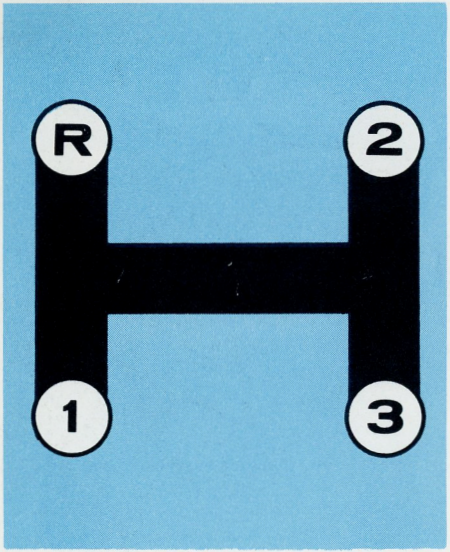
COMPARTMENT—The compartment located to the rear of the center console can be used to store your personal objects. Press the button to open and lower lid firmly to close. The oval end key operates the lock.

TACHOMETER—A tachometer is used on models with Synchro-Mesh transmission. Its purpose is to indicate engine R.P.M. (revolutions per minute). The red hand can be manually set as desired.

VACUUM GAUGE—A vacuum gauge is located in the console on models equipped with Hydra-Matic transmission. This gauge indicates the engine manifold vacuum. Driving with moderate acceleration and high vacuum readings improve fuel economy.

ASH TRAY (CONSOLE)—The ash tray is located on the vertical portion of the console and can be removed simply by opening the ash tray cover and lifting the container out.





The three-speed synchro-mesh transmission is standard equipment on all Pontiac models. It incorporates the conventional three forward speeds and reverse. Shift pattern for the synchro-mesh transmission is the familiar "H" pattern as shown in the illustration.

Three-Speed Synchro-Mesh Transmission—For smooth, efficient operation and ensured transmission life, the following detailed shift procedures are recommended for your three-speed synchro-mesh equipped Pontiac.

FIRST GEAR (LOW)—Depress the clutch pedal, shift into first gear, and smoothly release the clutch pedal while simultaneously pressing on the accelerator pedal. First gear should always be used to start the car moving; however, it should never be engaged when the car is in motion.

SECOND GEAR—As the car gains speed, depress the clutch pedal, release the accelerator and move the gearshift lever into second gear. Release the clutch pedal and depress the accelerator pedal as above. Avoid starting the car moving in second gear as this practice may cause clutch slippage thereby reducing clutch life.

THIRD GEAR (HIGH)—As the car continues to gain more speed, shift into third gear in the manner described above. Slowly release the clutch pedal and depress the accelerator pedal. Third gear is the cruising gear for all normal driving. NEVER use third gear to accelerate from a stop.

NOTE. When shifting gears, move the lever easily and delay slightly before completing the shift. This will allow time for the transmission synchronizers to coordinate gear speeds, minimizing shift effort and prolonging transmission life.

For smoother performance at slow speeds, the transmission can be downshifted from third to second while the car is in motion by depressing the clutch pedal and manually moving the gearshift lever to second position.

TO STOP—Release the accelerator pedal and depress the brake pedal. As the car nears stopping, depress the clutch pedal along with the brake pedal and move the gearshift lever into neutral.

NEUTRAL—For use when starting or idling the car. Never coast in neutral. This practice is illegal in many states.

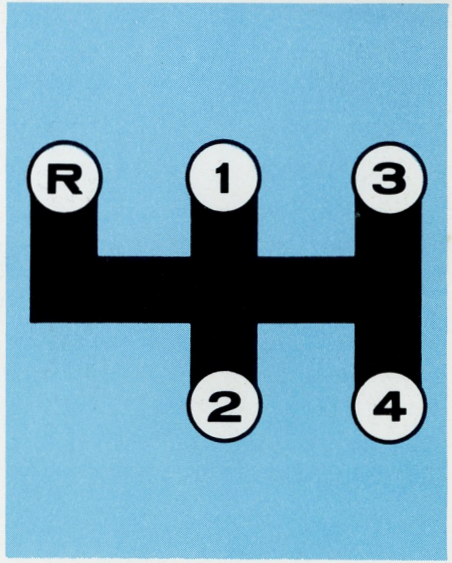
REVERSE—Operate reverse as for first gear but always at a slow speed. The car must be brought to a complete stop before shifting into reverse.

Four-Speed Synchro-Mesh Transmission—The four-speed synchro-mesh transmission is optional on all models. It has four fully synchronized forward speeds and one non-synchronized reverse speed. The shift pattern is shown in the illustration.

Clutch Pedal Adjustment—The pedal should be adjusted from time to time so that it has some free travel before clutch actually begins to disengage. The pressure of one finger should be enough to push pedal in about ¾″ to 1″ before resistance of clutch springs is felt. If there is little or no "pedal (fork) lash", the clutch may be slipping which will cause it to wear out faster If there is too much "pedal lash", the clutch may not disengage completely, causing gear shifting trouble. When "pedal lash" is less than ½″ or more than 1¼″, an adjustment should be made by your Pontiac dealer.

Shifting the Transmission—First gear is selected by depressing the clutch pedal and moving the lever to "1" position. Since the four-speed synchro-mesh is fully synchronized, first gear can be engaged while the car is operating at speeds less than 30 M.P.H. Move the shift lever easily, delaying slightly to allow the transmission synchronizers to coordinate gear speeds.

For actual shifting procedure, follow the instructions given for the three-speed synchro-mesh on page 8.



The four-speed synchro-mesh transmission is optional on all Pontiac models. Shift pattern is shown on the floor plate or shift knob and is the modified "H" pattern as illustrated above.

ECONOMY TIP

Since every needless revolution of the engine wastes gasoline, it is most economical to shift into high or third gear as soon as possible.

Pushing to Start—Your Synchro-Mesh equipped Pontiac can be started by pushing in an emergency. However, due to the possibility of damage to bright metal parts, this practice is not recommended.

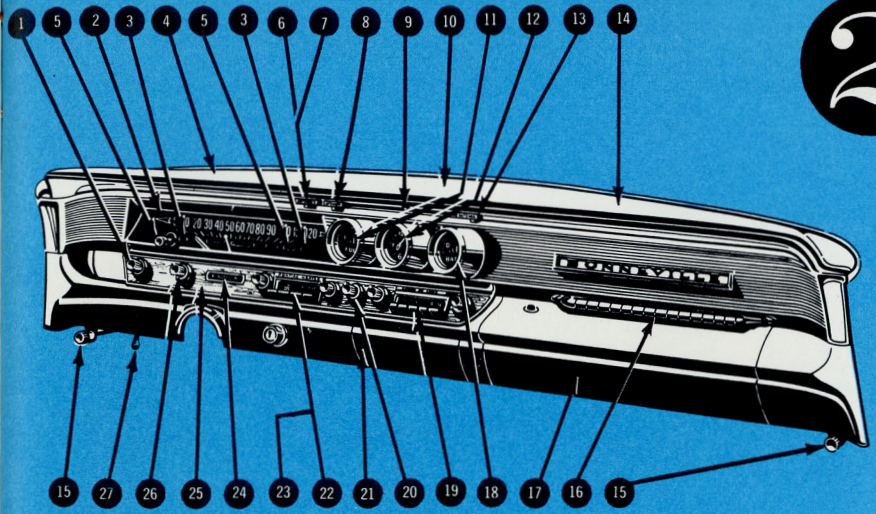
1. Turn on the ignition key and depress the clutch pedal.

2. Place the gearshift lever in second or third gear.

3. When the car reaches approximately 15 m.p.h., slowly release the clutch. After engine starts, depress clutch pedal and run the engine at fast idle until warm. Then proceed as normal.

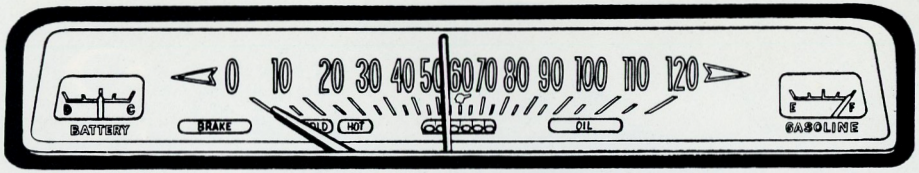
Driving Cautions:

1. Do not engage first gear when the car is in motion on vehicles equipped with three-speed synchro-mesh transmission.
2. Do not "speed shift", allow time between shifts for transmission synchronizers to coordinate.
3. Do not use second, third or fourth gears to accelerate from a stop.
4. Always place gear selector lever in neutral when starting the engine.
5. Never "ride" the clutch pedal as this may cause excessive heat and wear on the clutch parts.
6. Never leave vehicle unattended with the engine running.



2 Reading the Instrument Gauges

1 MAIN LIGHT SWITCH
2 TURN INDICATOR
3 PARKING BRAKE SIGNAL LAMP
4 DEFROSTER AIR OUTLET
5 ELECTRO-CRUISE
6 POWER TOP OR STATION WAGON TAIL GATE WINDOW SWITCH
7 REAR SPEAKER SWITCH
8 REAR WINDOW DEFOGGER
9 COURTESY LAMP
10 RADIO SPEAKER GRILLE
11 FUEL GAUGE
12 CLOCK
13 POWER ANTENNA SWITCH
14 INSTRUMENT PANEL CUSHION
15 COWL VENT
16 ASSIST HANDLE (BONNEVILLE & GRAND PRIX ONLY)
17 GLOVE COMPARTMENT
18 BATTERY INDICATOR (AMMETER)
19 RADIO
20 CIGAR LIGHTER
21 ASH TRAY
22 AIR CONDITIONING CONTROLS
23 HEATER CONTROLS
24 AUTOMATIC TRANS. INDICATOR
25 WOOD APPLIQUE (BONNEVILLE & GRAND PRIX ONLY)
26 REMOTE MIRROR CONTROL
27 WINDSHIELD WIPER & WASHER CONTROL



Fuel Gauge — The fuel gauge operates only when the ignition switch is on. When ignition is off, the pointer may come to rest at any position. The far left mark indicates empty (E) and the far right mark full (F). The pointer may fluctuate while driving due to the movement of fuel in the tank. When the gauge registers "E" (empty) a safety reserve of 1 to 2 gallons still remains in the tank.

Battery Gauge—Your battery gauge indicates whether the generator is charging or if it is discharging. If the pointer should indicate discharge while driving, other than at idle speed, or at very slow driving while lights and accessories are operating, take your car to an authorized Pontiac dealer for servicing. When the battery is close to fully charged, the battery gauge will indicate very low rate of charge.

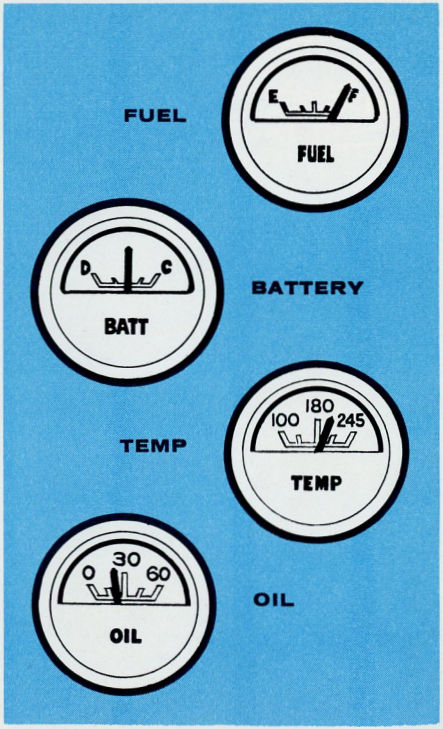
Water Temperature Light—(standard)—a green light appears when a cold engine is started and remains on until the engine warms up. No light appears while the engine operates at normal temperature. A red light will appear should the engine overheat. If this happens, stop car and allow engine to cool; then proceed to nearest service station to remedy cause. For checking purposes (to insure light is operative) the red light appears while cranking the engine.

Temperature Gauge—(optional)—The temperature gauge indicates the temperature of the coolant and should normally operate 180° or above. If the gauge should indicate hot, over 245°, take immediate action to find the cause.

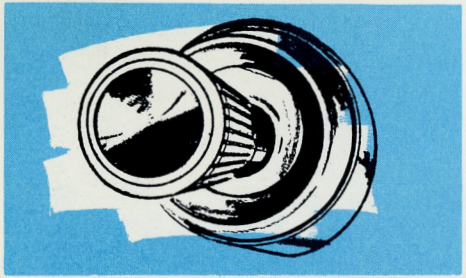
Oil Pressure Light—When the ignition is turned on, a red light appears until the engine is running. Thereafter, the light does not show unless there is insufficient oil pressure, or engine idle speed is below normal.

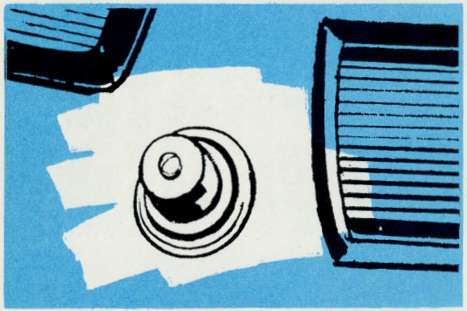
If the red light should come on at any time while driving (other than momentarily at idle speed) stop immediately and investigate for the cause of low oil pressure.

Oil Pressure Gauge — (optional)—The normal operating pressure is from 20 to 40 p.s.i. as indicated on the gauge. Should the gauge fall below this pressure other than at idle, turn off the engine and check oil level. Engine oil pressure should not fall below 5 p.s.i., even at idle.



3 Standard Controls





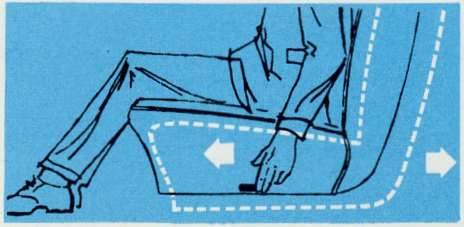
Headlight, Dome Light and Instrument Panel Light Switch — The parking lights turn on when the switch is pulled out to the middle position, and headlights turn on (parking lights turn off) when the switch is in the full out position. Instrument panel, license plate, and tail lights are on in both positions. Turning the knob controls the brightness of the instrument panel lights. When turned to the end of its clockwise travel, the instrument panel lights go off. To operate the dome light, turn the headlight knob counterclockwise to the end of its travel.

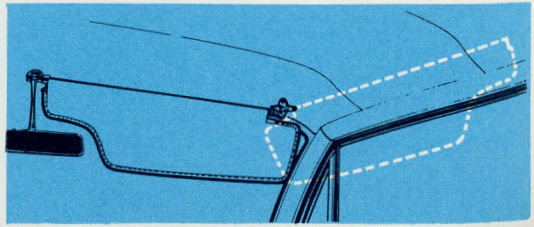
Dimmer Switch—The foot dimmer switch, located to the left of brake pedal, enables you to raise or lower headlight beams. The HIGH BEAM red-indicator light, at middle of speedometer, is illuminated when upper beams are on.

Parking Brake and Release—Apply parking brake firmly by depressing the foot pedal next to the left cowl kick pad located under the left hand end of the instrument panel. Release by applying upward pressure to the release handle marked "BRAKE" located above the pedal.

Seat Adjustment—Pull the small lever up and with slight forward or rearward pressure move the seat to the desired position. Release the lever to lock the seat.

Sun Visor Adjustments—Sun visors may be raised or lowered about a pivoted axis as necessary to shade the sun. They are retained at the center of forward edge of the roof. To position the visor at the side window, release hooked end at center and swing visor to the side of the car. To position them in front of the upper portion of the windshield, simply grasp the visor by the edge and pull down.





Cowl Vents and Controls—Your Pontiac is equipped with air vents at the right and left cowl panels (except air conditioned models). Individual controls enable passenger or driver to regulate the flow of air for additional driving pleasure.

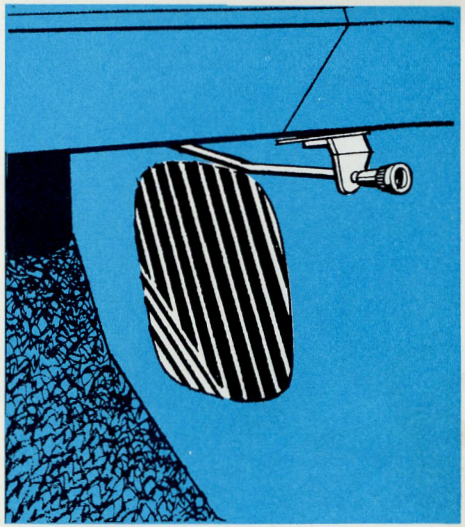
Windshield Wiper Control—All cars are equipped with either single or two-speed (optional on Catalina) electric windshield wipers. To operate, turn the control clockwise.

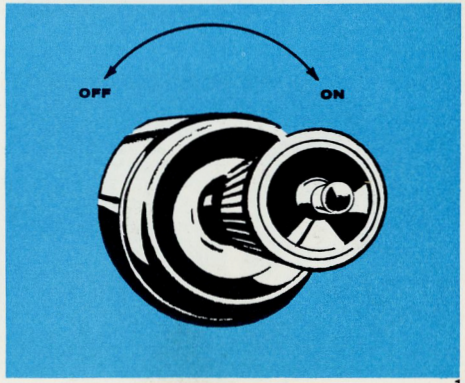
Windshield Washer Control—(accessory)—To operate windshield washer, depress button in the center on the wiper control knob. After washer action stops, wiper control must be turned counterclockwise to shut off the wipers. Pontiac Windshield Washer Solvent is recommended for use in the washer reservoir located under the hood to the right of the engine.

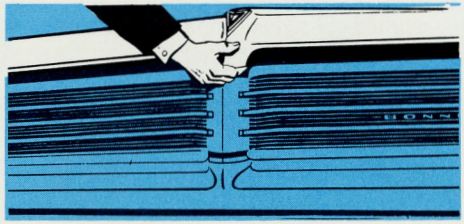
Cigar Lighter—The cigar lighter in your Pontiac is designed to operate quickly and efficiently with a minimum of effort. Simply depress the lighter and it will automatically heat and snap out, ready for use. Avoid holding the lighter in by hand while it is heating as damage may be caused to the heating element.

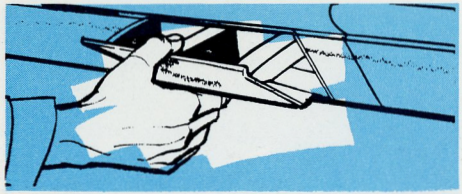
Hood Latch—The hood latch release lever is located under the center section of the front bumper and, as an added safety feature, your Pontiac is equipped with a safety catch located between the hood and grille bar. This safety catch prevents the hood from raising to the full open position in event the hood release lever becomes disengaged while the car is moving.

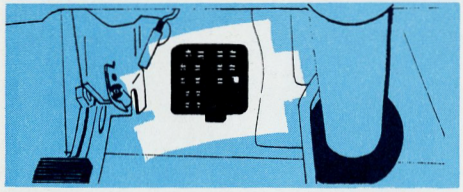
To open the hood, pull the release lever forward as indicated in the illustration. With the hood partially raised, release the safety catch between the hood and grille bar, then raise the hood.

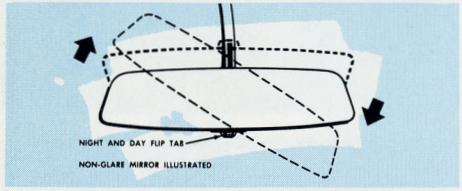


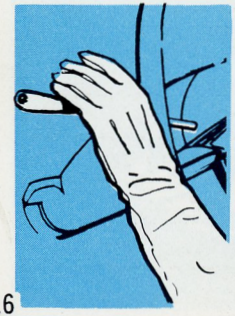


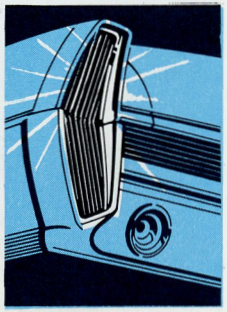












Ash Tray Removal—The drawer type front ash tray may be removed by pulling the drawer out against the stop and press down to disengage the stop and pulling completely out. To install the tray, place tray into the opening, aligning slides with tracks, and push in. Rear ash trays may be lifted out of their arm rest receptacles.

Fuse Block Location—The fuse block is mounted on the dash under the instrument panel to the left of the steering column (see illustration). For fuse specifications, see "General Specifications" on page 46.

Adjusting Your Rear View Mirror—The rear view mirror has an optional position which may better serve your needs. This may be accomplished by turning mirror 180° or upside down. Height adjustment also may be made by adjusting the pivot arm behind the mirror.

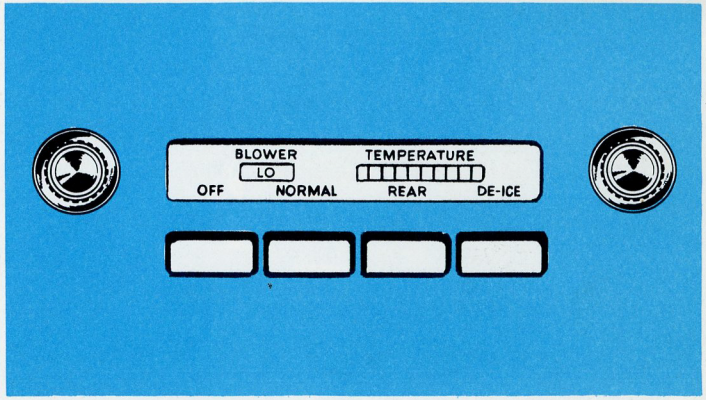
Direction Signals—The ignition switch must be on to operate the direction signals. The lever on the left of the steering column must be pushed up for right turn and pushed down for left turn. This action causes the front signal light and the rear stop light to flash on the side of the car that direction of turn is to be made. If stoplights are applied at the same time a turn is indicated, the opposite stoplight will remain illuminated but will not flash.

One of the two green lights on the speedometer face flashes to indicate operation of the front and rear signal lamps. If the indicator light stays on and does not flash, check for burned out signal lamp bulb. If indicator light does not light when indicator lever is moved, check fuse and indicator bulb.

If the system is not functioning properly, a legal hand signal should be given since failure to indicate a turn is considered a moving traffic violation in many states. Always indicate a turn at a reasonable distance before making your turn.

Circ-L-Aire Heater —Your new Pontiac is equipped with a Circ-L-Aire Heater. It will provide you with excellent cold weather heating and defrosting. To obtain optimum performance from this heater follow carefully the recommendations below.

Temperature Control Knob —The temperature control knob (right) regulates the temperature of the air discharged from the heater and defroster. Turn the knob to maximum clockwise position, with "red" indicator marks covering the entire window opening when entering a cold car. Once the temperature inside the car has risen to a desired level, adjust the knob counterclockwise to maintain this temperature.



HOW TO SET YOUR HEATER CONTROLS

CIRC-L-AIRE HEATER

	OFF	NORMAL	REAR	DE-ICE	TEMP KNOB (right)	FAN KNOB (left)
Normal Driving		in			as required	LO or MED
Windshield De-Icing				in	Maximum clockwise	HI
Slow Driving		in			as required	MED or HI
Avoid Outside Objectionable Odors	in					Automatically OFF
Summer Driving		in			Counterclockwise	Optional
Rear Seat Heating			in		as required	HI

Blower Control Knob—The blower control knob regulates the fan speed which propels the air from the heater and defroster outlets. When the "DE-ICE" or "REAR" push button is depressed two fan speeds are available. A medium-high speed will be obtained with the blower knob at "OFF", "LO", or "MED" and a super-high speed will be obtained with the fan knob at "HI".

Push Buttons—The push buttons vacuum control the air flow through the heating system.

Caution: **When driving in extremely cold weather clear any snow from hood and cowl. This will help reduce formation of ice on inside of windshield during initial operation.**

NOTE: The vent panes and all windows should be closed for draft-free comfort when the heater is in use; however, under adverse weather conditions, window de-fogging or windshield de-icing may be improved by opening a door window approximately ⅛" and opening the vent panes slightly. When glass is free of fog or ice, close door windows and vent panes.

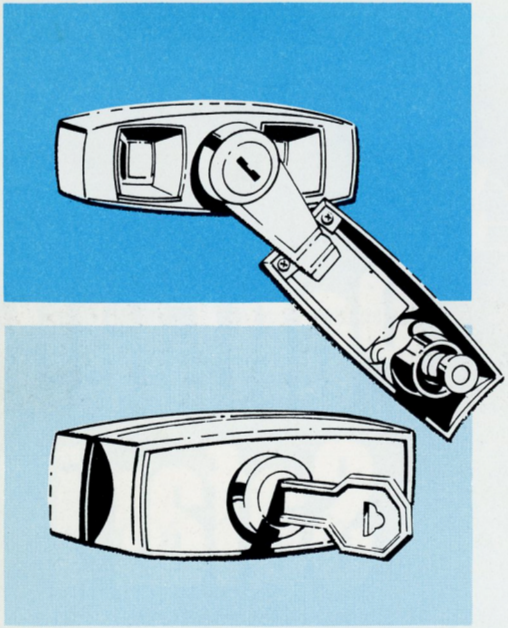
If your new Pontiac is equipped with Circ-L-Aire Air Conditioning, see page 28 for heater operating instructions.

WARNING:

CARBON MONOXIDE

Avoid inhaling exhaust gases when any concentration of these are present in the air, i.e., in a garage, in congested traffic, or when parked closely behind a vehicle with its engine running. Exhaust gases may have strong odors which normally should give warning of their presence. However, the exhaust gases from some vehicles may not be so noticeable under certain conditions and the senses of people react differently. Exhaust gases contain a percentage of carbon monoxide which is a poisonous gas that, by itself, is tasteless, colorless, and odorless.

4 Pontiac Safari



To Open Tailgate—To open tailgate, first lower window to the full down position. Then, pull the lock control handle (inside gate) upward and open gate. To close, simply shut gate firmly being certain that the latches are fully engaged and raise window.

Power Operated Tailgate Window—Separate switches are provided for convenient control of the electric tailgate window. Key operated switch on the outside of the tailgate and hand operated switch on upper bezel of instrument panel.

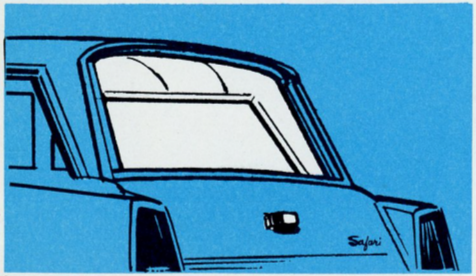
Manually Operated Tailgate Window—1. Swing out window regulator handle. 2. Rotate the handle counterclockwise until the window is lowered to the desired position. 3. At desired position, rotate the handle clockwise to a horizontal position and snap handle into escutcheon. 4. To close window, reverse steps 1 through 3. NOTE: Window must be fully lowered if tailgate is to be opened and Tailgate must be fully closed before attempting to close window. Cowl vents should be open when tailgate window is open to avoid drawing dust into the car through the tailgate opening.

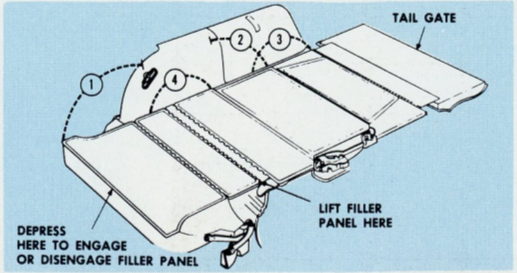
Operating Six Passenger Safari Second Seat—To lower seat, pull up release lever at right side of second seatback rest and fold seatback down. To raise, depress seat as shown, lift filler panel at point indicated and raise seat.

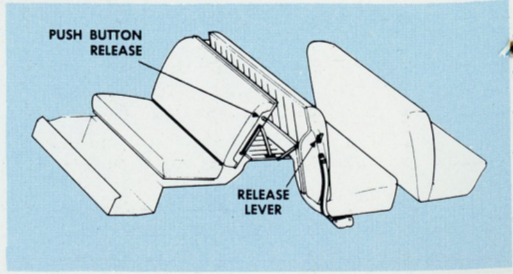
Operating Nine Passenger Safari Third Seat—To lower: 1. Open tailgate. 2. Grasp rear of seat cushion and rotate it over and back, forming rear of cargo space. 3. Pull seatback support links rearward and pull seatback rearward and down to complete floor of cargo space.

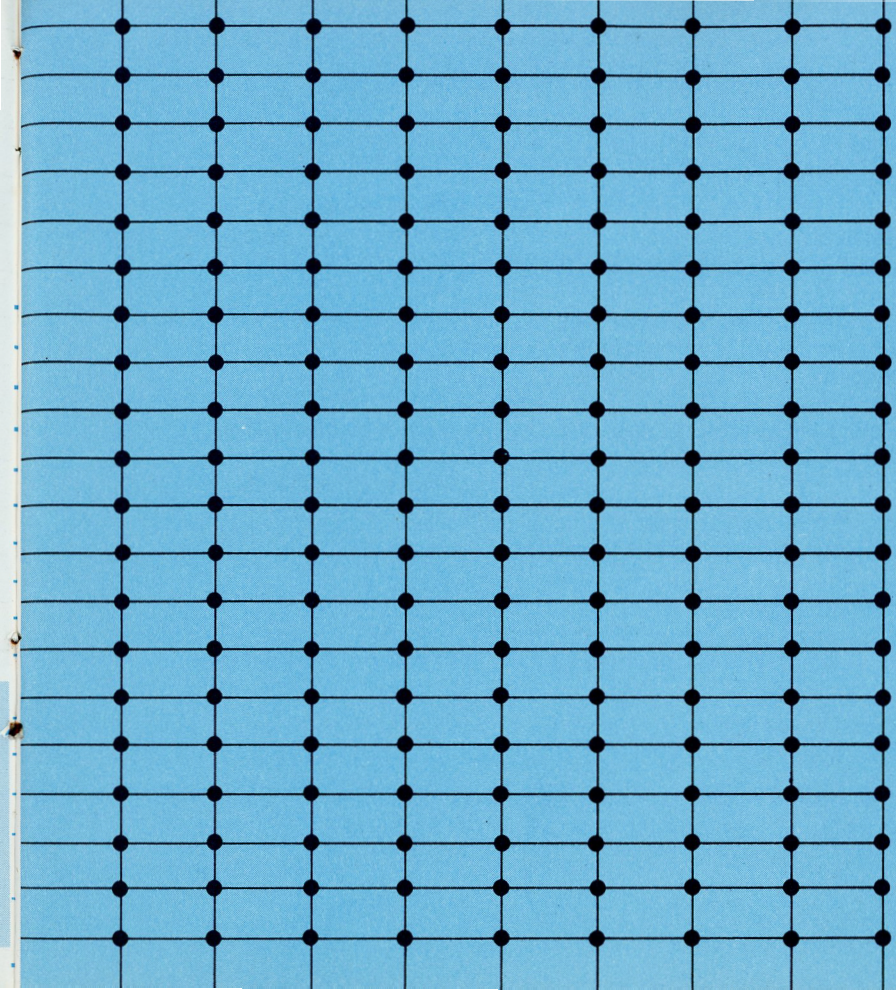
Safari Load Limit—Six or nine passenger Safari—1200 pounds.

Spare Tire and Tools—The spare tire and tools are stored behind the right rear trim panel (removable on all Safaris), see page 40.



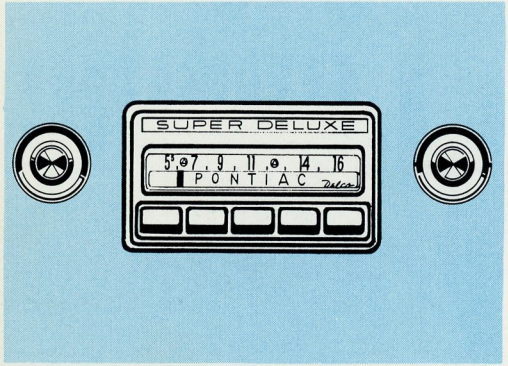


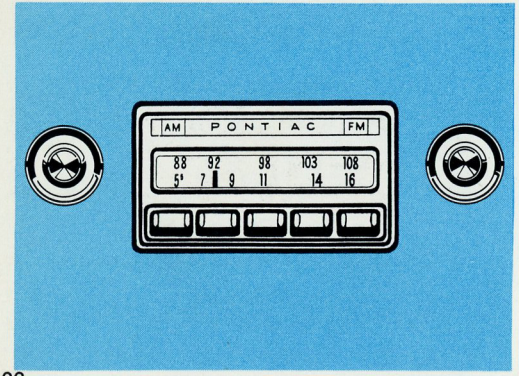




5 Accessories

Radio





Control Knobs—All Pontiac radios have the following controls:

Left Hand Knob

The left inner knob turns the set on and off and controls the volume.

The left outer knob (labeled TONE) changes the tone from bass to treble when moved clockwise. A center detent is provided for full tone position.

Right Hand Knob

The right hand knob manually selects radio stations.

Super Deluxe AM Radio—The Super Deluxe radio receiver is equipped with five push buttons that can be pre-set to automatically select favorite stations by simply pushing any one of the buttons.

AM—FM Radio—In addition to the conventional controls the AM-FM receiver has a slide switch just above the dial to select either the AM or FM band.

Satisfactory FM reception is limited by the distance from the transmitter and the strength of the station. If reception becomes erratic or noisy select another FM station that is geographically closer, or switch to the AM section of the receiver.

Adjusting the Push Buttons

1. Turn the radio receiver on.
2. Pull selected push button out as far as it will go.
3. Manually tune to the desired station.
4. Push button in and release.
5. The push button will always return to this "preset" point on the dial until it is reset.

Antenna—For optimum radio performance, the antenna mast should be set to 20″-24″ for metropolitan areas or fully extended in rural areas. On cars equipped with AM-FM radio extend antenna to approximately 31″.

Power Antenna Control—The power antenna is controlled by a manually operated power antenna switch which is located on the instrument panel (See illustration).

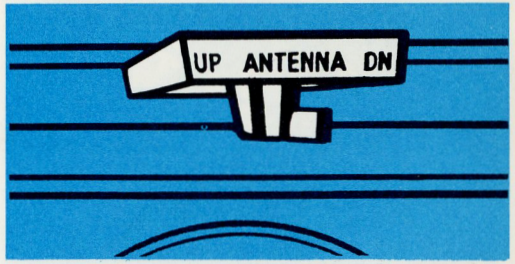
The power antenna may be raised by pushing the switch lever to the left, and lowered by pushing the switch lever to the right. A clicking sound tells you when the power antenna is in the full "up" position, or when it is in the full "down" position.

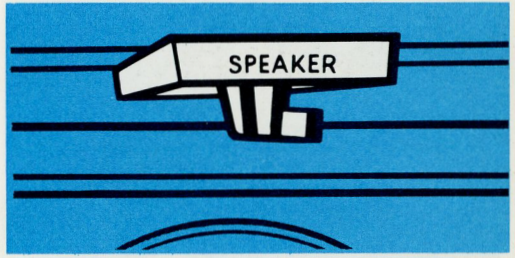
Sepra-Phonic Speaker—The rear seat speaker (see illustration) is controlled by the speaker switch on instrument panel as follows: left position—front speaker; middle position—front and rear speakers; right position—rear speaker.

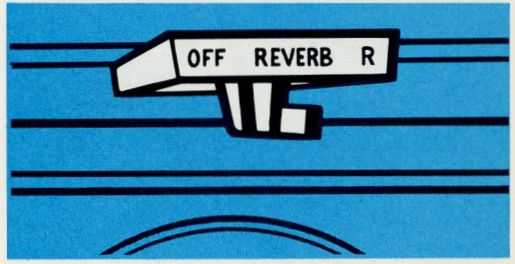
Verbra-Phonic Speaker System—Delays sound projection from rear speaker by 25-35 thousandths of a second to simulate the acoustics of a fine concert auditorium. A three position switch on instrument panel gives front, rear (both conventional sound) or reverb (front and rear) speaker control.

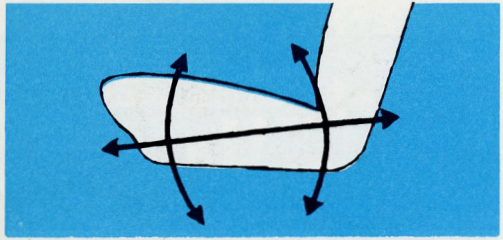
Wonder Touch Power Steering—Pontiac's Wonder Touch power steering offers superb ease in handling. Parking, getting into or out of tight places is made very easy with power steering. Assist is provided by a hydraulic pump driven by the engine. When the engine is not running, there is no power assist and the car is controlled by manual steering. In the event the engine stalls the car can be safely steered manually; however much greater effort is required.

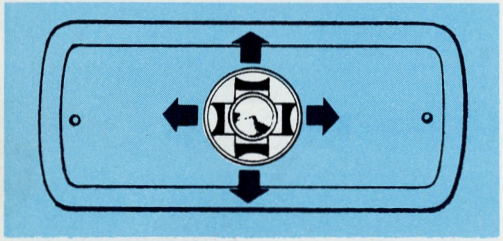
Wonder Touch Power Brakes—While the engine is running power assist is provided by the engine manifold vacuum. Pontiac's Wonder Touch Power brake system will normally allow one or two power applications of the brake after the engine stops. After this, more pedal pressure will be required to apply the brakes, since the power brake unit is no longer assisting the driver.

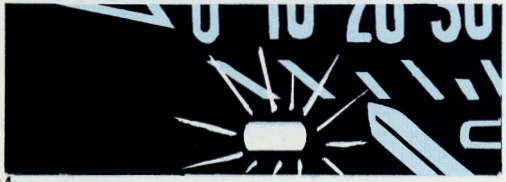












Six-Way Power Seat—The electrically-operated six-way front seat assembly can be moved forward, rearward, upward, downward or tilted by means of a manually-operated seat control switch. The large center control knob controls movement of the entire seat assembly. The smaller forward control knob controls the vertical movement of the front of the seat assembly causing the seat assembly to "tilt". In the same manner, the rear control knob controls vertical movement of the rear of the seat assembly. To obtain maximum vertical travel, it will be necessary to engage the center vertical control until the limit of travel is reached, then engage the smaller forward or rear control knob to complete the maximum travel.

Power-Tilt Electric Seat—The Power-Tilt switch is located at the left hand side of the bucket seat cushion side trim panel. Simply move the switch in the desired direction of travel, release switch and the seat is locked in position. See illustration.

Power Window Lifts—All vertical moving windows (except Safari Tailgate window) are controlled by the power window control switch on the left front door as shown. Individual switches are provided under each window for passenger use. Press switch up to raise window and down to lower. From left to right on the master control are: left front, right front, left rear, and right rear.

Parking Brake Warning Light—The parking brake warning light is an optional item and is located on lower left corner of speedometer dial (except in cars equipped with Electro-Cruise in which case location is lower right corner). When parking brake is applied and ignition switch is turned to "on" or "accessory" position, the indicator light glows red as a reminder to disengage brake before moving car.

Electric Clock—Automatic regulation is built into the setting device of the Pontiac electric clock. If the clock gains time, pull the stem out and turn the hands counterclockwise to the correct time. If it loses time, turn the hands clockwise to the correct time.

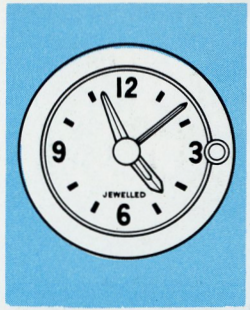
Remote Controlled Outside Mirror—The remote control lever for the outside rear view mirror is located at the lower left edge of the instrument panel. Simply move the lever in the direction desired to adjust position of the mirror.

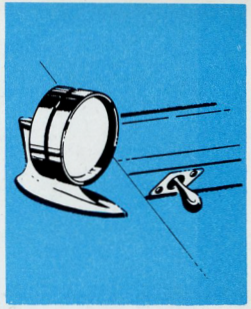
Tilting Steering Wheel—Drivers can experience maximum steering wheel position comfort with Pontiac's Tilting Steering Wheel. The steering wheel position can be adjusted by lifting the wheel adjusting lever at the left of the steering column, placing the wheel in the position desired, and then releasing the lever below turn signal lever while holding the desired wheel position.

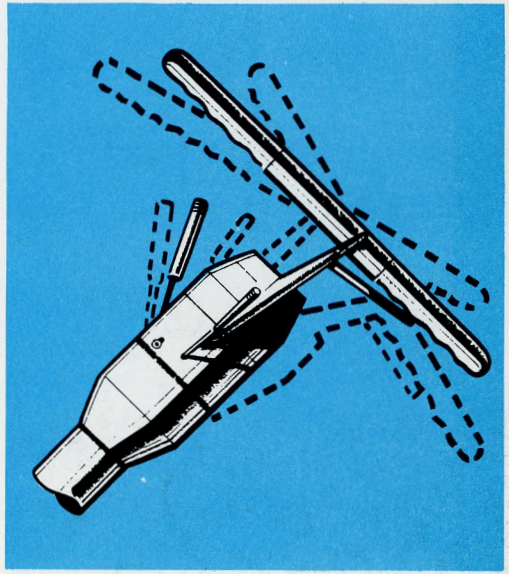
There are seven different positions of adjustment, they are· Center, 5°, 10° and 15° above center, and 5°, 10° and 15° below center.

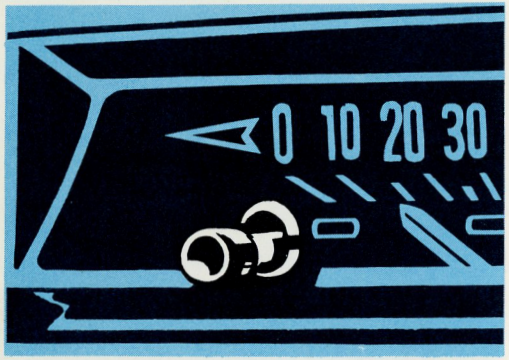
When the adjusting lever is pulled up without holding on to the steering wheel, the wheel automatically moves to the 15° above center position to provide easy entry or exit from the car.

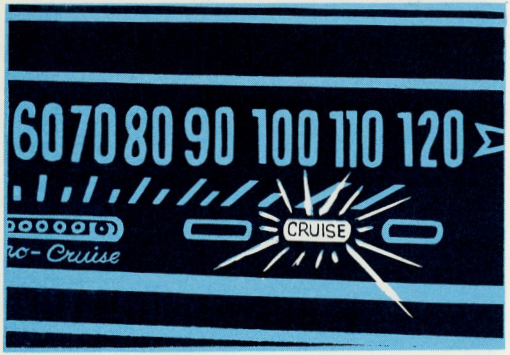
Rear Window Defogger—The rear window defogger mounted under the rear package shelf provides rapid defogging of the rear window. The switch mounted in the same location as convertible power top or station wagon tail gate window switch on the instrument panel operates the blower











Electro-Cruise—is a driver operated speed regulating system, capable of accurate control of car speed over a wide range of operating conditions. Within engine limitations, a speed range of 30 to 90 miles per hour can be accurately held within 2½ miles per hour of a particular speed setting. In operation, Electro-Cruise compares a measurement of car speed with the selected speed to maintain the selected speed under varying road conditions.

How To Operate

SPEED SETTING—Rotate speed set knob (on speedometer) so that yellow set pointer is positioned at desired cruise speed. (Desired speed may also be reset with system in cruise.)

ENGAGEMENT—Push speed knob in (knob is located to left of speedometer) and hold in until set speed is reached. At this time cruise light will come on and Electro-Cruise will control speed of car.

ALTERNATE ENGAGEMENT—The car may be brought up to set speed by the accelerator pedal, and then engaged by depressing the engagement lever.

DISENGAGEMENT—The Electro-Cruise system can be disengaged by depressing the brake pedal, pulling the engagement knob to "off" (to the rear), or by turning the ignition switch to the "off" or "lock" position. Once the system has been disengaged it is necessary to re-engage, adhering to engagement instructions in paragraphs on engagement and alternate engagement. Disengagement is verified when the yellow cruise light turns off.

OVER-RIDE—The accelerator pedal may be depressed to any desired engine power output to over-ride the Electro-Cruise speed setting. When the accelerator pedal is released, the Electro-Cruise will again maintain the desired set speed without re-engagement.

Safety Precautions: **The Electro-Cruise should not be used under traffic or weather conditions not suited to maintaining a constant speed.**

Do not engage system when transmission is in reverse.

6

Air Conditioning

CIRC-L-AIRE CONDITIONER

AND HEATING SYSTEM

Your Circ-L-Aire conditioner offers a concept of year-round comfort, for all seasons and climates, day or night, in rain, snow, or in brilliant sunshine. Combining the heater and air conditioner into an integrated package gives you complete comfort regardless of the weather outside the car.

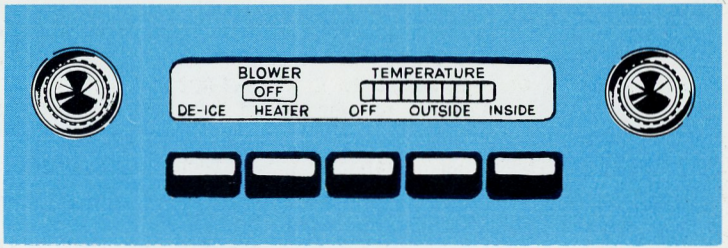
Air Outlets—As dictated by comfort requirements, heated air is introduced into the car at foot level, where it sweeps the floor of the car. Upper levels in the car are progressively cooler, to give a pleasant sensation to the upper body and face of passengers. If snow or sleet interferes with vision, then heated air can be directed to the windshield for clear vision and safer driving. In warmer weather, refrigerated and dehumidified air enters the interior of the car through five outlets. (1) Air outlets at the ends of the instrument panel. Each is a nozzle which can direct cooled air to suit the occupant's wishes. (2) The center outlet (high in the center of the instrument panel) contains a rotary vaned valve that can be vertically adjusted to direct air flow to the rear seat area. (3) Two smaller outlets are located below the instrument panel for lap and body cooling for the driver and front passenger.

Regulating Your Circ-L-Aire Conditioner

1. AIR CONTROL PUSH BUTTONS—Five push buttons allow you to select heating or cooling, or to shut off the entire system.

DE-ICE Maximum air flow through defroster outlets, some air flow through heater outlet, blower automatically on super "HI", temperature as set by the temperature knob.

HEATER Maximum air flow through heater outlet, some air flow through defroster outlet, blower speed will be as selected, temperature as set by the temperature knob.



OFF No air flow, no heating, no cooling.

OUTSIDE Cooled and dehumidified outside air enters the car thru the air conditioning outlets. Refrigeration operates continuously with blower speed and temperature as selected.

INSIDE For maximum air cooling performance inside air recirculates thru the car with outside air added. Refrigeration operates continuously, with blower speed and temperature as selected.

2. BLOWER CONTROL (left knob)—Controls four blower speeds: LO, 2, 3, and HI. The blower always operates at one of the four speeds when either air conditioning or heater is in use.

3. TEMPERATURE CONTROL (right knob)—Regulates temperature of air entering into the car, whether heated or refrigerated.

With the knob in full clockwise position, and the dial opening showing all red bars, maximum heating or minimum cooling results. Even at this position the air conditioner is operating "full cold" (if "outside" or "inside" button is depressed) for maximum dehumidification of incoming air, but the air is reheated to whatever degree you wish. As the knob is rotated counterclockwise, the dial opening shows a progressively increasing area of blue color, to indicate increased cooling or less heating. Maximum cooling or minimum heating is obtained when the temperature control knob is fully counterclockwise.

Mountain Areas—When operating the air conditioner at altitudes of 2000 feet or over, set the temperature control knob so that at least 1½ or 2 red bars show in the dial opening. This setting will give maximum cooling and yet prevent "evaporator freezing" even during prolonged driving.

NOTE: For proper operation of the air conditioning system, keep the cowl vent and windows closed. A right-hand cowl vent is not used with the Circ-L-Aire conditioning system.

NOTE: Car windows should always be closed except for the first two or three minutes of a fast cool down.

Operate your air conditioning system for five minutes at least every month, even during the winter, to check for proper functioning. If the system is not operating normally, turn the unit off immediately and have your Pontiac dealer check the refrigeration system.

SETTING YOUR CIRC-L-AIRE CONDITIONER CONTROLS

AIR CONDITIONING AND HEATER CONTROLS

	PUSH BUTTONS					KNOBS	
	DE-ICE	HEATER	OFF	OUTSIDE	INSIDE	BLOWER	TEMPERATURE
Muggy Weather				in		2 or 3	as required
Mild Weather				in		LO or 2	as required
Fast Cool Down Hot Weather					in	HI	fully counterclockwise
Slow Driving Hot Weather					in	HI	as required
Fast Driving Hot Weather				in or	in	3 or HI	fully counterclockwise
Fast Driving Warm Weather				in		2 or 3	as required
Controlling Temperature in the Car				in		as required	as required
Mountain Driving				in		as required	set with two red marks showing
Heating—Normal Driving		in				LO or 2	as required
Rear Seat Heating		in				3 or HI	as required
Windshield De-icing	in					HI	as required
To Avoid Objectionable odors			in			automatically off	

7

Fuel and Lubrication Requirements

Driving in Other Countries

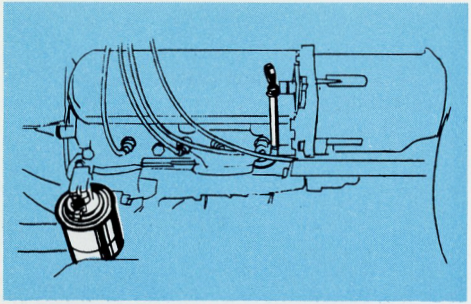
Use of fuels with inadequate octane ratings will result in detonation, spark knock or ping, and can result in severe engine damage. This is not due to any manufacturing defect but constitutes misuse of the engine. A fuel which will permit operation without heavy or continuous detonation must be used at all times. NOTE: If detonation persists, take the car to your Pontiac dealer

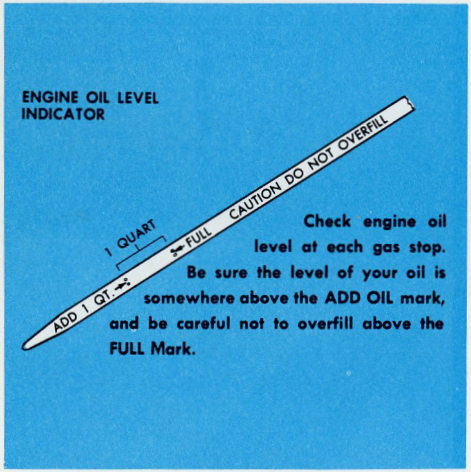
In many areas of the world, fuels with sufficient octane ratings are not available. Therefore, before taking your car outside of the Continental U.S. or Canada, it is advisable to ascertain the octane ratings available in the countries you propose to visit. Such information can be secured for most foreign countries from Pontiac Motor Division, Service Department, 196 Oakland Ave., Pontiac, Michigan.

If you plan to drive your car in any area where the fuel octane ratings are insufficient, it is suggested that you contact your Pontiac dealer for further information. There are internal engine mechanical modifications that can be made to lower the fuel octane requirements of the engine in your car. These alterations are strictly owner responsibility.

FUEL OCTANE REQUIREMENTS

Engine	Compression Ratio	Minimum Octane
2 BBL, 389 Cu. In.	8.6:1	91
2 BBL, 389 Cu. In.	10.5:1	98
4 BBL, 389 Cu. In.	10.5:1	98
Tri-Power, 389 Cu. In.	10.75:1	100
HO (high output engines) All	10.75:1	100





Oil Filter Change Recommendations

Replace oil filter every 6 months or 6,000 miles, whichever occurs first.

Lubrication Recommendations

All suspension pivot points and steering linkage connections are lubricated with a long life lubricant and sealed when assembled. Under normal driving conditions, the chassis should be lubricated yearly or at 30,000 miles with special Pontiac Chassis Grease. If conventional chassis lubricant is used, relubrication at 6 months or 6,000 miles is necessary.

The throttle linkage, parking brake linkage and body parts requiring attention should be lubricated as required with each oil change. Your Pontiac dealer knows of these requirements. The maintenance chart on the following pages lists complete recommendations.

Positive Crankcase Ventilation—The Positive Crankcase Ventilation System makes an important contribution to the reduction of air pollution. Fuel fumes which pass by the piston rings and enter the crankcase consist of unburned hydrocarbons that are almost thirty times greater in concentration than exhaust emissions. The PCV re-cycles these hydrocarbon emissions back to the intake manifold to be burned thereby reducing the elimination of crankcase emissions.

In order to retain the advantage of the Positive Crankcase Ventilation System and properly protect your engine, the ventilator valve and breather caps should be serviced yearly or 12,000 miles whichever occurs first.

Engine Oil Recommendations

The crankcase of your new Pontiac was filled at the factory with high-quality MS oil, specially compounded to ensure proper lubrication of all engine parts during break-in. This oil should be changed after 60 days. Succeeding oil changes should also be made at 60-day intervals, but never to exceed 6,000 miles. NOTE the 1964 Pontiac is equipped with specially engineered chromium plated piston rings. These rings allow oil to flow freely on the cylinder walls during the break-in period. Therefore, oil consumption may be higher during the break-in period than it will be afterward.

Oil which according to the label on the can, is intended for service MS, DG or HD should be used.

Atmospheric Temperatures Expected	Recommended SAE Viscosity No.	Acceptable Alternate
Above Freezing +32°F. & above	20W	10W-30
Below Freezing 0° to +32°F.	10W	10W-30
Below Zero	5W	5W-20

Self-Adjusting Brakes — All 1964 Pontiacs have self-adjusting brakes. Periodic brake adjustments are not required. The self-adjusting mechanism operates only when the car is moving in reverse and the brakes applied. It is possible for excessive pedal travel to develop if reverse movement and brake application does not take place during an exceptionally prolonged period of forward stop and go driving. Should this occur, the car should be driven forward and backward and the brakes firmly applied at the end of each directional movement until brake pedal travel is normal.

NOTE: When driving on dusty roads, in dust storms or during extreme driving conditions which includes long periods of idling, the oil should be changed more frequently to prevent the danger of oil contamination.

Battery Care

Care of your battery is very simple but extremely important. It should receive the following attention:

1. Check the fluid level in each cell of your battery regularly. If low, add distilled water to bring level to bottom of split ring in cell filler well. CAUTION: Do not over-fill battery and never add any substance to fluid except distilled water.
2. Keep your battery, battery cable clamps, and battery hold-down bracket clean. Cleaning should be done with a brush and a solution of ammonia and water or baking soda and water. Flush off with clear water. After cleaning, apply petroleum jelly or petrolatum to battery cable clamps and terminals to retard corrosion.
3. If battery performance becomes questionable, have your Pontiac dealer give the battery a "Light Load Test".

Caution: Since batteries give off highly explosive gas, never expose top of battery to an open flame or electric spark. Also, avoid getting electrolyte on clothing or other fabrics.

Cooling System

The Pontiac cooling system requires little care except for maintaining an adequate coolant level. If GM ethylene glycol type inhibited engine coolant is used, it is not necessary to drain the coolant for summer driving because this coolant has been especially formulated to last 24 months in the cooling system of your new car After service for 24 months, drain the system, flush it with water, and refill with an inhibited year-round coolant meeting the GM 1899M specification.

If other than Pontiac approved inhibited glycol-type anti-freeze solution is used, the cooling system should be drained, flushed, and refilled for the summer months. **When water is used, a good corrosion inhibitor must be added to the system. Such a product may be obtained from Pontiac Dealers as Part No. 983743. Failure to use an inhibited coolant may result in severe corrosion damage to the cooling system components.**

Do not overfill. Coolant level should be 1/2″ to 1″ below the bottom of the filler neck.

If necessary to drain the cooling system completely for any reason, use the drain located on the inside right corner of the radiator and the plugs on the sides of the engine block.

Caution: A pressure radiator cap is used to provide the best cooling. When removing, rotate the cap to the left very slowly. If a hissing noise is heard, stop and allow pressure to decrease before removing cap completely. Pressure caps of other than the factory approved type should not be used.

To assure best effective heater performance, your car has been equipped with a 180°F. thermostat. Therefore, the use of the ethylene glycol type engine coolant gives best heater performance. Follow radiator capacities given on page 46 and manufacturer's recommendation given on the anti-freeze container.

Alcohol-base coolant should not be used in Pontiac automobiles.

Note: Special "Pontiac" ethylene glycol type engine coolant is released under the following part numbers:
983909—1 Qt. Can 983910—1 Gal. Can.

MAINTENANCE SCHEDULE

Your 1964 Pontiac has been engineered for minimum owner maintenance. To ensure that you continue to receive the optimum in performance and durability that has been built into your Tempest, there are services recommended to be performed on a time or mileage basis depending upon the amount of driving you do.

In addition, it is recommended that you return to your Pontiac dealer for service at periods outlined in the following schedule.

You will note that maintenance periods are based on 6,000 miles, 60 days, 6 months, one year or two years depending on the item to be serviced.

A handy suggested service schedule is also printed on the coupons that are provided in your Owner Protection Plan Booklet outlining proper maintenance.

Items Requiring Lubrication or Service at 6,000 Miles

Manifold Heat Control Valve	Observe for freedom of movement, lubricate with graphite in alcohol if sticky.
Power Steering Pump Reservoir	Add fluid as necessary—fill reservoir only to mark. Use power steering fluid, part number 9771864. Replace fluid only if necessary to disassembly.
Differential	Check for leaks. Maintain level with hypoid lubricant SAE 90. Change lubricant only when necessary to disassemble.
Differential, Safe-T-Track	Check for leaks. Use only part number 531536 lubricant.
Manual Steering Gear	Add lubricant as necessary. Change lubricant only when necessary to disassemble. Use all season steering gear lubricant.
Synchro-mesh Transmission	Check for leaks. Use multi-purpose SAE 90 lubricant. Change lubricant only when necessary to disassemble.
Brake System and Master Cylinder Reservoir	Check system for adequate brake pedal reserve and for evidence of leaks, correct, use GM or Delco Super II or any SAE 70R1 Brake Fluid.
Clutch Linkage (Synchro-mesh)	Check lash and adjust as required every 6,000 miles. Engine oil at pivot points. Grease at push rod to clutch fork joint. Chassis grease at cross shaft pressure fitting.
Synchro-mesh Transmission Shift Linkage—Column Shift	Engine oil at all joints below steering column shift levers.
Synchro-mesh Transmission Shift Linkage—Floor Shift	Engine oil at all joints under body.
Tires	Rotate tires every 6,000 miles, and balance in new position.

Items Requiring Lubrication or Service Every 60 Days or 6,000 Miles, Whichever Occurs First

Engine Oil	Oil changes should be made every 60 days not to exceed 6,000 miles (see page 33).

Items Requiring Lubrication Every 6 Months or 6,000 Miles, Whichever Occurs First

Engine Oil Filter	Replace oil filter every 6 months or 6,000 miles, whichever occurs first.
Standard Carburetor Air Cleaner	Clean and re-oil using engine oil. Clean and re-oil after each occasion of driving under severe dust conditions. NOTE: Heavy duty type filter is recommended for continuous operation under severe dust conditions.
Hood Latch Assembly	Engine oil on pivot and spring anchor points, light grease on release pawl every six months and as required.
Hood Hinges	Engine oil on hinge pins and spring anchor points every six months and as required.

Items Requiring Lubrication or Service Every 6 Months or 12,000 Miles, Whichever Occurs First

Accelerator Linkage	Engine oil at all pivot points, do not lubricate the linkage which is part of the carburetor assembly.
T. V. Linkage (Hydra-Matic Only)	Engine oil—do not lubricate carburetor assembly.
Hydra-Matic Shift Linkage	Lubricate with engine oil at all joints below steering column except rubber grommets.
Air Conditioning	Check refrigeration system sight glass for proper quantity of Freon charge (with engine running, A/C on, and over 70° ambient temperature). A clear glass indicates a solid column of Freon in a system which is operating properly.

Items Requiring Lubrication or Service Yearly or 12,000 Miles, Whichever Occurs First

Fuel Filter (Tri-Power)	Replace filter yearly or every 12,000 miles, whichever occurs first. If premature plugging is experienced, change brand of fuel.
Crankcase Inlet Vent and Oil Filler Cap	Clean and re-oil with engine oil.*
Positive Crankcase Vent Valve	Replace valve assembly yearly or every 12,000 miles, whichever occurs first.
Heavy Duty Air Cleaner	Wash element in solvent and re-oil with 10W-30 engine oil.*
Heavy Duty Air Cleaner (Paper element Tri-Power Only)	Clean or replace yearly or every 12,000 miles.†
Fuel Filter—Integral (All Exc. Tri-Power)	Clean Yearly

*NOTE: Clean and re-oil after each occasion of driving under severe dust conditions.
†NOTE: Clean or replace after each occasion of driving under severe dust conditions.

Items Requiring Lubrication or Service Yearly or 30,000 Mile Intervals, Whichever Occurs First

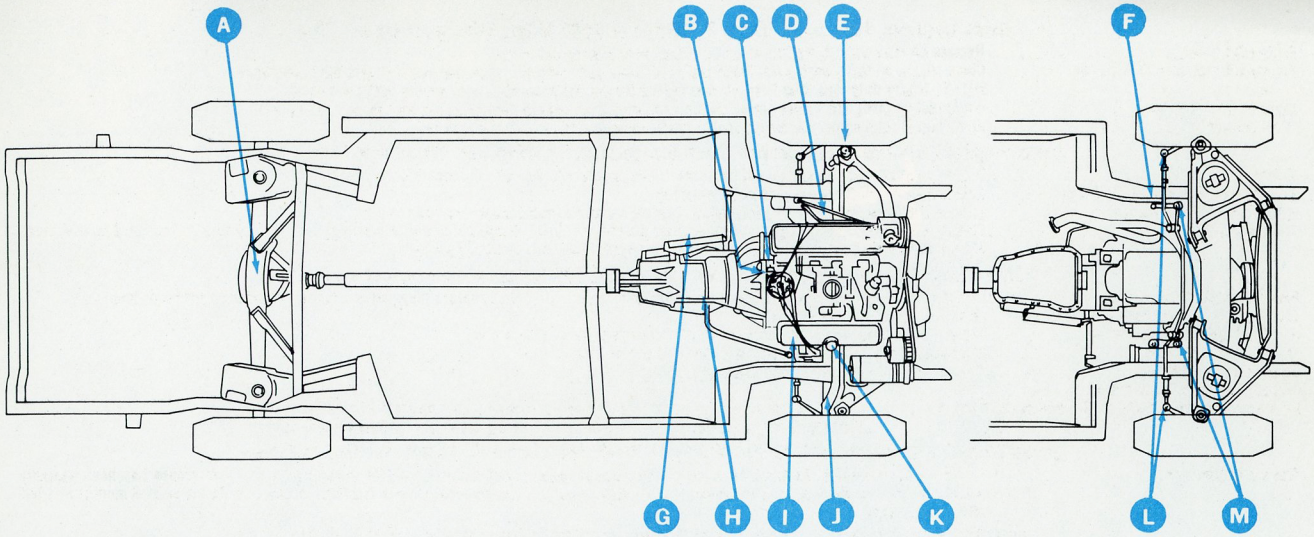
Chassis Lubrication	For additional extended chassis lubrication periods, special grease part number 1474829 is recommended. This grease has been specially formulated for your new car, and is available at Pontiac dealers. If conventional chassis lubricant is used, relubrication at 6 months or 6,000 miles is necessary.

Items Requiring Lubrication or Service at 2 Years or 24,000 Miles, Whichever Occurs First

Automatic Transmissions	Replace transmission oil. Refill with Hydra-Matic fluid AQ-ATF, Type "A". Under Heavy-Duty operating conditions or excessive stop-and-go driving replace transmission oil at 12,000 mile intervals.

1964 Pontiac Items Requiring Lubrication or Service at Special Intervals

Parking Brake Cable	Clean and relubricate at time rear brake drums are removed for major brake service—use light grease.
Speedometer Cable	If noise or needle flicker occurs—lubricate. Use speedo cable grease.
Front Wheel Bearings	Lubricate only when wheels are off for other service—use special Hi-temperature wheel bearing grease—use only enough lubricant to thoroughly coat the rollers—do not fill the wheel hub cavity.
Body Door Locks and Strikers	Stick-type lubricant, use sparingly as required.
Door Hinge Hold-Opens	Light grease on friction surfaces. Use sparingly as required.
Body Door Hinge Pins	Engine oil as required.
Station Wagon Tail Gate Hinge & Linkage	Engine oil as required.
Station Wagon Folding Seat	Engine oil on pivots (use sparingly) as required.
Fuel Door Hinge	Engine oil on hinge pin and spring anchor points as required.
Battery	Add distilled water every 30 days. May require more frequent additions during high ambient temperatures and/or extended trip operation. Clean terminals yearly, and apply petrolatum.
Air Conditioning	Operate air conditioner system for a minimum of 5 minutes every month, even in winter. This will supply oil to the compressor shaft seal.
Air Conditioning Condenser Core	Clean off leaves, bugs, etc., and flush outside of condenser and radiator core to remove dirt yearly, each spring. CAUTION: Do not use steam.
Fan and Accessary Drive Belts	Adjust as required to prevent belt slippage.
Windshield Washer Solvent	Use only Pontiac approved solvent, Part No. 989664 and follow instructions on label to insure proper operation of washer.



A —Differential
B —Distributor
C —Accelerator Linkage
D —Upper Control Arm Pivot Shaft
E —Upper Control Arm Ball
F —Steering Idler Arm
G —Hydra-Matic Linkage
H —Transmission
I —Manifold Heat Control
J —Lower Control Arm Ball
K —Crankcase Ventilator and Oil Fill
L —Tie Rod Ends
M —Steering Connecting Rod

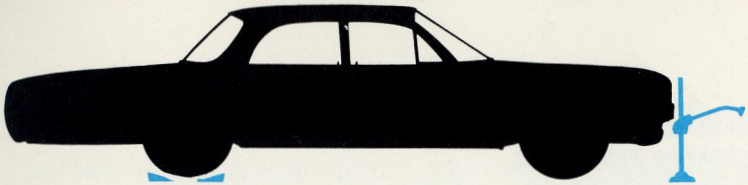
LUBRICATION FITTINGS

4 Ball Joints
2 Tie Rod Ends
2 Steering Connecting Rods
1 Idler Arm
1 Clutch Shaft (Snychro-mesh only)

See related items and recommendations, pages 35 and 36.

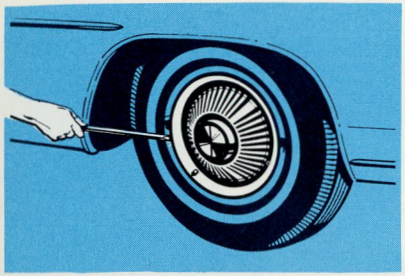
8

General Information



CHANGING WHEELS

Caution: Never run the engine on car equipped with safe-t-track differential, when one wheel is raised.

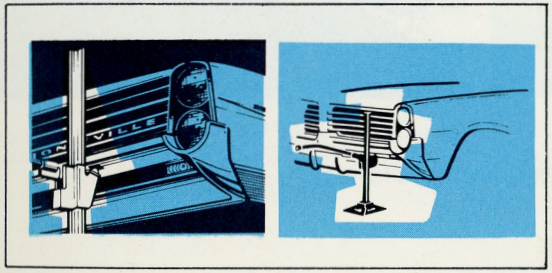


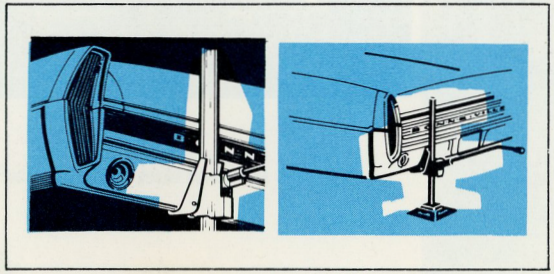
1. Set the parking brake and block diagonally opposite wheel.
2. Place the jack adapter on jack as illustrated when lifting rear bumper. Place adapter in slot on rear bumper as shown in illustration. For front bumper place hook on jack frame in slot located on bottom edge of bumper as shown in illustration.

POSITION OF JACK

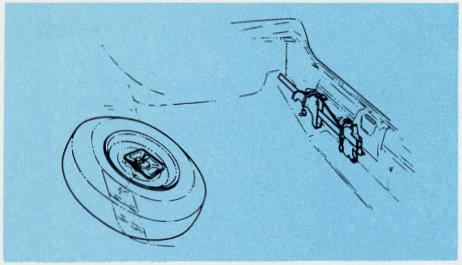
Front Bumper—The hook on the jack frame should be firmly positioned in slot on the bottom edge of bumper on side to be raised.

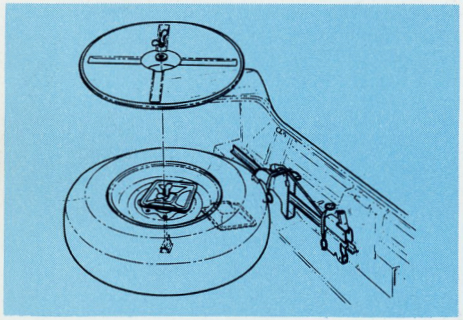
Rear Bumper—The jack must have the adapter bracket attached to the jack frame. The adapter hook should be firmly positioned in slot on the bottom edge of the bumper on the side to be raised.

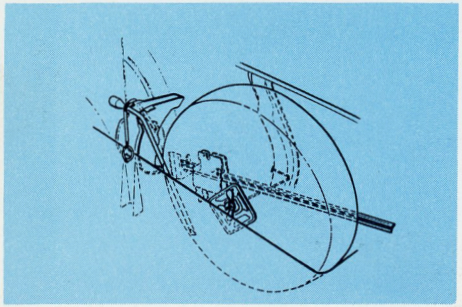




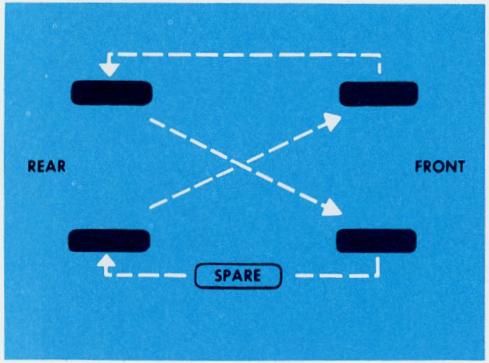
NOTE: On cars equipped with aluminum wheels carefully remove the trim ring (as illustrated on page 40) and reinstall on spare wheel. Only four of these rings are supplied with this option.

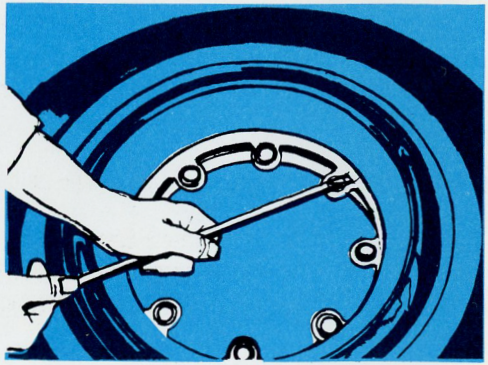






3. Remove hub cap or wheel disc with edge of lug wrench. Loosen wheel lug nuts by turning counterclockwise on both sides.
4. Put small lever on jack in "up" position and raise car.
5. Remove wheel lug nuts and wheel. Install spare wheel and tighten lug nuts clockwise on both sides.
6. Place small lever on jack frame in "down" position and lower the car. Fully tighten the wheel lug nuts. Reinstall the hub cap or wheel disc.





TRIM RING REMOVAL

SEAT BELTS PROVIDE . . . ADDED SAFETY AND COMFORT

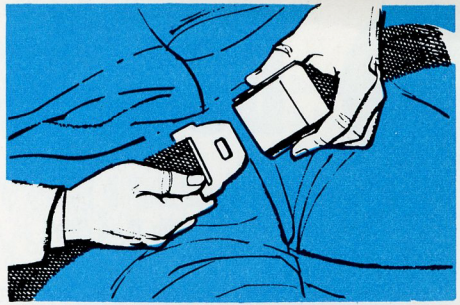
Seat belts are available as an extra cost option installed at the factory or at your authorized Pontiac dealer. At your request and at a nominal fee, your dealer will be happy to install these belts for you. Special fittings are provided as standard equipment for front seat installation and drilling or use of special tools is not required. Proper usage and care of belts will provide added safety to driver and passengers in case of sudden, unexpected stops.

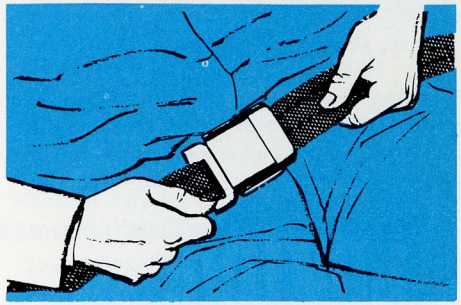
Fastening the Seat Belt—After the driver has positioned the front seat to his satisfaction, grasp the buckle and the catch of your individual belt assembly and position the belts around your waist. Push the catch into the open end of the buckle until an audible snap is heard. Adjust the belt securely to your waist by pulling on the end of the belt protruding from the buckle.

Releasing the Seat Belt—To release the belt, pull up on the buckle lever.

Care of Seat Belts—Keep belts clean and dry. Clean with a mild soap solution and lukewarm water. Keep sharp edges and damaging objects away from belts. Inspect periodically for cuts and damage that can materially lessen the effectiveness.

Caution: **Do not bleach or dye belts as this may cause severe loss of strength.**





9 Beauty Care

Washing—Preserve the original beauty of your Pontiac's finish and protect the value of your investment by keeping it as clean as possible. Gasoline, tree sap, road tar, excretion from insects, and smoke from factory chimneys, contain harmful chemicals and other foreign matter that may permanently damage the finish of your car if not washed off promptly. Frequent washing is very important in areas where salt or calcium chloride may come into contact with your car's finish.

Note: Extreme caution should be taken when using washing compounds on your car finish, as some will cause paint damage such as spotting the paint.

Always use cold water in washing a car, never wash it in the direct rays of the hot sun, and always wait until the sheet metal surfaces are cool.

Care of Magic-Mirror Finish—All models have Magic-Mirror finishes, an acrylic lacquer finish of maximum durability and beauty

When removing road oils and tar from Magic-Mirror finishes, care must be exercised to use a cleaner that is not harmful to this finish. Ordinary tar and stain removers that were developed for cleaning regular lacquer may be harmful.

When purchasing any cleaner, make sure the instructions on the container specifically state that the contents can safely be used on Magic-Mirror (acrylic lacquer).

In areas where industrial chemical fallout and/or ocean spray is a problem, it is advisable to wash your car each week or oftener if required and apply polish to the paint and to all bright metal.

Special Polish and Wax Jobs—We recommend that your car be polished at the time of delivery and every four to six months thereafter. Properly applied polishes and waxes of known quality will help maintain the appearance of your car. Many Pontiac dealers offer various types of polishes or waxes which have proven of real value in maintaining a good paint finish.

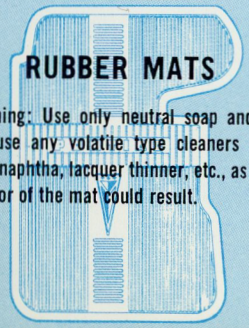
If you plan on polishing your car, it is well remembered that the polishes and cleaners which do the job fastest and easiest are not necessarily the best. A polish containing a large amount of abrasive will do the job quickly but will also remove the paint and may etch or damage bright metal parts.

Bright Metal Parts—ANODIZED ALUMINUM—Wash these with lukewarm water or mild soap, not with a strong alkali solution. Rinse thoroughly. Avoid use of bright metal polishes or those containing abrasives harmful to aluminum.

NOTE: In severe cases, road oil and tar may be removed from aluminum by a chemical cleaner which is specified as safe to use on an acrylic finish.

Chrome and Stainless Steel—A protective coating such as GM Chrome Gard, may be applied on clean chrome surfaces which are stain and rust free. If necessary, GM Chrome Cleaner and Polish may be used to remove rust from chrome plate parts before applying a protective coating.

Wash all bright metal parts frequently to alleviate the destructive forces of salt, calcium chloride, salt air, exhaust gases, and industrial fall out (which may be corrosive).



Beauty Care Inside Your Car—Dust and dirt particles that accumulate on the upholstery of your car should be removed periodically. For best results, stains should be removed from upholstery as soon as possible.

Before attempting to remove spots and stains from upholstery fabric, determine as accurately as possible. (1) Type of fabric or trim material. (2) Nature and age of the stain. (3) Effect of stain-removing agents on the color, structure, and general appearance of the fabric.

Cleaning Your Trim—A neutral non-alkaline soap with luke-warm water should be used to clean the following:

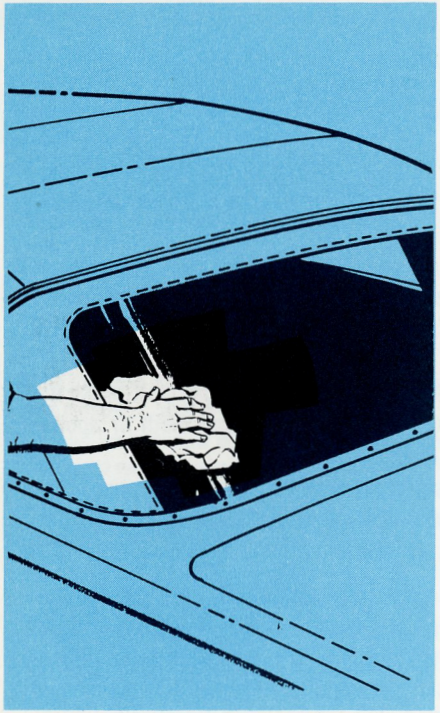
1. Fabrics
2. Genuine Leather
3. Coated Fabrics
4. Convertible tops

Suds only should be applied to the above with a damp cloth, sponge, or soft brush and rubbed gently. The suds should then be removed with a clean, damp cloth or sponge. Finally, the surface should be wiped with a soft cloth.

In some cases of especially stubborn fabric stains, it may be necessary to use either GM Upholstery Cleaner or GM Upholstery Spotter which is available from your Pontiac dealer Use as the label directs.

CAUTION: When cleaning fabrics, do not use a cleaning solvent . . . acetone, lacquer thinners, enamel reducers, nail polish remover, or any gasoline which is colored or which contains tetraethyl lead; laundry soaps or bleaches and reducing agents, such as Chloride of lime, Javelle water, Hydrogen peroxide, Sodium hydrosulphite, Potassium permanganate, Chloride or chloride water, Sulphurous acid (sulphur dioxide), Sodium thiosulphate (Photographer's hypo). It is also important that you do not use too much cleaning fluid.

Walnut Wood Inserts—Care for the decorative wood parts of the instrument panel and steering wheel on these models as you would any fine furniture finish. Apply a high quality furniture wax at least every six months. Avoid the use of water on this finish as the panel may become discolored and the adhesive loosened.



Caution: Never use solvents such as alcohol or volatile cleaning agents on the plastic window.

Carpet Floor Coverings—Carpets are cemented to form-fitting jute backings and are held securely in place by side sill mouldings.

When cleaning floor coverings, they should be vacuumed thoroughly first. If soil remains, use a volatile type cleaner. Repeat for heavily embedded stains. Extreme care should be taken to make certain that carpets are not "soaked" with the cleaner.

Note: Neutral soap and water may also be used, but at the risk of color removal. Make certain that carpets are thoroughly dry before closing all windows and door openings.

Convertible Back Window—The back window on the convertible coupe is pliable plastic. Due to the nature of the plastic window, DO NOT USE A SCRAPER when removing frost, snow or ice. Warm water may be used instead. Use care that this warm water does not contact the actual glass windows or windshield.

Use a soft cotton cloth moistened with water to remove road dust, and then clean the back window with cold or luke-warm water and mild neutral soap suds. After washing, rinse with clear water and wipe with a slightly moistened clean soft cloth.

Convertible Top—If the convertible top requires additional cleaning after using soap and water, a mild foaming type cleanser can be used. A small hand brush having soft or nylon bristles should be used for scrubbing. Add water to the cleanser until a soapy consistency is obtained and clean approximately two square feet of the top at one time. After scrubbing, remove the cleaner with a sponge. Care must be exercised to keep the cleanser from running down and across the body finish which may cause streaks. After the entire top has been cleaned, rinse the top generously with clear water to remove any trace of cleanser which might remain. See Folding Top booklet furnished with convertibles for other maintenance.

Leather Wrinkles—Genuine leathers have a natural tendency to wrinkle or crease. Such creases occurring in service do not detract from the wearing qualities. The best leather hides have inherent characteristics variously described as scars, horn marks, and briar scratches which in no way detract from quality or durability.

10 Specifications

GENERAL SPECIFICATIONS

Wheelbase—	
Catalina (except Safari) and Grand Prix	120″
Star Chief and Bonneville (except Safari)	123″
Catalina and Bonneville Safari	119″
Tread—Front	63″
—Rear	64″
Maximum Overall Length—	
Catalina (except Safari) and Grand Prix	213″
Star Chief and Bonneville (except Safari)	220″
Safari	213.8″
Width	79.2″

Engine—

	389 Cu. In.	421 Cu. In. Exc. H.O.	421 Cu. In. High Output
Type	V	V	V
Number of Cylinders	8	8	8
Valve Arrangement	Overhead	Overhead	Overhead
Valve Lash	0″-Hydraulic	0″-Hydraulic	0″-Hydraulic
Bore & Stroke	4-1/6″ x 3-3/4″	4-3/32″ x 4″	4-3/32 x 4″
Piston Displacement	389 cu. in.	421 cu. in.	421 cu. in.
Compression Ratio—			
S-M (except Grand Prix) Std.	8.6:1	10.5:1	10.75:1
S-M (Grand Prix) Std.	10.5:1	10.5:1	10.75:1
Economy Engine	8.6:1	—	—
Hydra-Matic	10.5:1	10.5:1	10.75:1
Tri-Power	10.5:1	10.5:1	10.75:1
Taxable Horsepower	52.8	53.6	53.6
Brake Horsepower	Your Pontiac dealer can provide this information		
Recommended Idle Speed—			
Synchro-Mesh	480-500 r.p.m.	480-500 r.p.m.	640-660 r.p.m.
Hydra-Matic (Drive Range, Brake Applied)	480-500 r.p.m.	480-500 r.p.m.	640-660 r.p.m.
Air Conditioning (in Drive, A.C., OFF)	540-560 r.p.m.	540-560 r.p.m.	690-710 r.p.m.

Ignition Timing	6° BTDC
(With vacuum line disconnected and manifold opening covered)	

Distributor—(Except optional Breakerless Ignition)—	
Dwell Angle	28° to 32°
Point Gap	.016″
Spark Plugs—	
Normal Driving	AC 45S
High Speed Driving	AC 43
Gap .035″	(.033″ to .038″)
Tire Size—	
All (Except Safari and Air Conditioning)	8.00 x 14″
Safari and/or Air Conditioning	8.50 x 14″
Tire Pressure (PSI tires cool)—	
8.00 x 14—All	24 Frt-22 Rr
8.50 x 14—All Except Safari Station Wagon	22 Frt-20 Rr
8.50 x 14—Safari Station Wagon*	20 Frt-26 Rr
With air conditioning increase front tire pressure 2 psi above standard.	
*With five passenger load increase rear pressure 4 psi.	
Capacities—	
Fuel—(Except Safari Station Wagon)	25 Gals.
—(Safari Station Wagon)	19 Gals.
Note: Use only "Anti-Surge" vented cap on Safari)	
Cooling System	19.5 Qts.
Safari Load Limit	1200 lbs.
Engine Oil Refill—(389 All)	4 Qts.
—With Filter Change	5 Qts.
Engine Oil Refill—(421 All)	5 Qts.
—With Filter Change	6 Qts.
Differential	5.75 pts.
Transmission—	
S-M 3-Speed (standard)	1.8 pts.
S-M 3-Speed (Heavy Duty)	2.8 pts.
S-M 4-Speed	2.5 pts.
H-M (Catalina and Grand Prix)	6 qts.
H-M (Star Chief and Bonneville)	9 qts.

FUSE AND CIRCUIT BREAKER SPECIFICATIONS

Stop Light	14 Amp Fuse
Direction Signal	14 Amp Fuse
Dome and Courtesy Light	14 Amp Fuse
Radio	2.5 Amp Fuse
Glove Compartment Light	14 Amp Fuse
Ash Tray and Cigar Lighter Light	14 Amp Fuse
Instrument Panel Lights	4 Amp Fuse
Heater and Safeguard Speedometer	20 Amp Fuse
Power Seat	40 Amp C.B.
Electric Wipers and Back-Up Lights	25 Amp Fuse
Headlights	22 Amp C.B.
Power Window Regulator	40 Amp C.B.
Circ-L-Aire Conditioner Power	30 Amp Fuse
Clock	14 Amp Fuse
Parking Brake Signal Light	20 Amp Fuse
Power Antenna	14 Amp Fuse
Utility Light	14 Amp Fuse
Tail Light	14 Amp Fuse & 22 Amp C.B.

IDENTIFICATION INFORMATION

Manufacturer's Motor Vehicle Identification Number: On a plate attached to the left front pillar post. Also, on the Owner Identification Plate in your Owner Protection Plan booklet.

Style, Paint and Trim Numbers: Stamped on the plate attached to the left side of the cowl just under the rear edge of the hood. Also, on the Owner Identification Plate in your Owner Protection Plan booklet.

Key Numbers: On the small metal knock out slug in the key.

WARNING

Avoid inhaling exhaust gases when any concentrations of these are present in the air, i.e., in a garage, in congested traffic, or when parked closely behind a vehicle with its engine running. Exhaust gases may have strong odors which normally should give warning of their presence. However, the exhaust gases from some vehicles may not be so noticeable under certain conditions and the senses of people react differently. Exhaust gases contain a percentage of carbon monoxide which is a poisonous gas that, by itself, is tasteless, colorless and odorless.

Design Change—The Manufacturer has reserved the right to make changes in design or add any improvements on motor vehicles and chassis at any time without incurring any obligation to install same on motor vehicles and chassis previously purchased. Dealer reserves a similar right.

Fuel Volatility—Gasolines sold in winter time have high volatility for fast starting. When these gasolines are used during unseasonably hot days, they may cause vapor-lock, surging, or stalling. If you've experienced these difficulties, inquire as to whether your fuel source has adjusted the volatility of its fuels for summer conditions.

Paint and Other Appearance Items—Imperfection in paint, trim or other appearance items is normally apparent and corrected during new car pre-delivery conditioning. Damage due to usage is not covered by warranty. For your protection, you are urged to call any imperfection to our attention immediately so that we, as your selling dealer, may make any necessary correction.

Glass—All glass used in the windshield is laminated safety plate glass. The glass used in all other windows is solid tempered safety plate glass.

Trailers—See your Pontiac dealer for information concerning the hauling of trailers.

Warranty—New car warranty, Service Policy, Tire warranty, and Battery warranty are fully outlined in your Owner Protection Plan booklet.

PONTIAC ZONE OFFICES

Atlanta 3, Georgia
Fulton National Bank Bldg.
55 Marietta St., N.W.
523-5511

Boston, Chestnut Hill 67, Mass.
220 Boylston St.
WOodward 9-7411

Buffalo 3, New York
10 Lafayette Square
856-9375

Charlotte 3, North Carolina
1051 E. Morehead Street
P.O. Box 3547
FRanklin 5-6001

Chicago 11, Illinois
Palmolive Bldg., 919 N. Michigan Avenue
DElaware 7-4300

Cincinnati 2, Ohio
2228 Kroger Building
Parkway & Vine Sts.
241-7340

Cleveland 16, Ohio
Center West Building
20950 Center Ridge Road
333-3300

Dallas 4, Texas
202 Sanford-Maple Building
2818 Maple Avenue
RIverside 2-8751

Denver 3, Colorado
Moore Building, 300 Speer Boulevard
733-5505

Houston 5, Texas
P.O. Box 25165, 3121 Richmond Avenue
JAckson 6-2201

Jacksonville 7, Florida
Prudential Building, 841 Miami Road
EXbrook 8-8671

Kansas City 12, Missouri
505 John Hancock Bldg.
800 West 47th St.
PL 3-7737

Los Angeles
North Hollywood, Calif.
Suite 405
10850 Riverside Drive
877-5481

Memphis 3, Tennessee
2010 Sterick Bldg., Third & Madison Streets
527-6347

Milwaukee 3, Wisconsin
Equitable Building
1701 W. Wisconsin Avenue
Division 2-2736

Minneapolis 16, Minnesota
Suite 433, 3033 Excelsior Boulevard
WAlnut 7-9771

Newark, East Orange, New Jersey
Liberty Mutual Building
240 S. Harrison St.
ORange 6-7500

New York 19, New York
Coliseum Tower, 10 Columbus Circle
CIrcle 7-4812

Oklahoma City 18, Oklahoma
Suite 300, Penn Sq. Nat. Bk. Bldg.
1919 Penn Square
VIctor 3-5501

Omaha 31, Nebraska
4470 Farnam Street
553-8505

Philadelphia, Bala Cynwyd, Pennsylvania
One Bala Avenue
Bala Avenue at City Line
TEnnyson 9-3650

Pittsburgh 20, Pennsylvania
Three Parkway Center
875 Greentree Road
922-5100

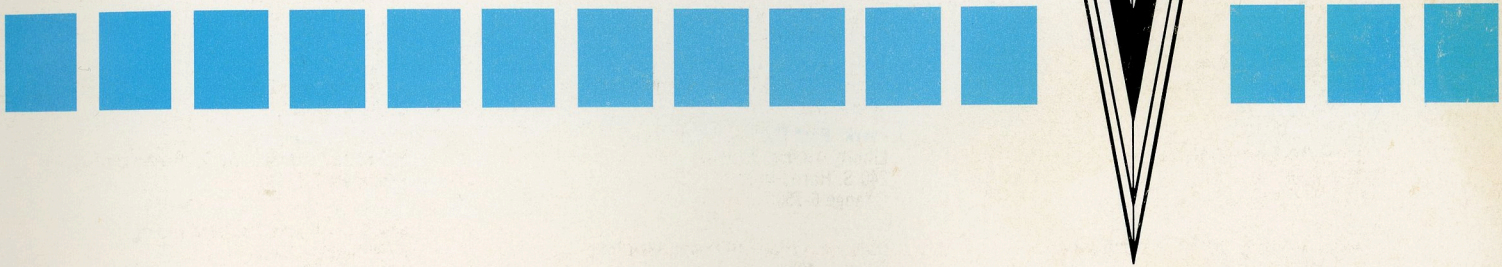
Pontiac 11, Michigan
196 Oakland Avenue
332-8111

Portland 5, Oregon
Pittock Block Bldg.
921 S.W. Washington
CApitol 6-2991

San Francisco, Burlingame, California
1819 Trousdale Drive
OXford 7-7661

St. Louis 5, Missouri
510 Siteman Bldg., 111 So. Bemiston Avenue
VOlunteer 3-0440

Washington, Chevy Chase 15, Maryland
315 Chevy Chase Center Building
35 Wisconsin Circle
OLiver 2-2650



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